

A B S T R A C T

The process is intended to optimize the operation of a digital protection system for protecting sets of busbars in the power station and uses a basic schematic of the electrical configuration of the power station obtained from information on the type of components used in the power station, and on the possible connections and accesses to said components. The information is assigned to management units of the digital protection system, said management units comprising peripheral measurement units and at least one centralization unit. A topological compilation process is implemented to provide a compiled schematic topology, and to provide a compiled assignment topology of the components in the power station and of their connections to the management units. A partial graph, whose structure depends on the type of information searched for and the status of each component of the power station, is obtained for each peripheral unit. A complete graph is then computed in one or more centralization units by algorithms which superpose partial graphs.